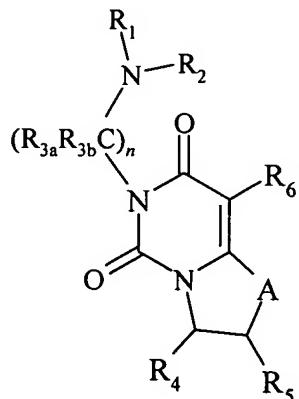


## CLAIMS

We claim:

1. A compound having the following structure:



or a stereoisomer, prodrug or pharmaceutically acceptable salt thereof,

wherein:

A is O, S, -OCR<sub>7</sub>R<sub>8</sub>-, or NR<sub>7</sub>;

n is 2, 3 or 4;

R<sub>1</sub> and R<sub>2</sub> are the same or different and independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl, substituted heterocyclealkyl, -C(R<sub>8</sub>)=NR<sub>9</sub> or -C(NR<sub>10</sub>R<sub>11</sub>)=NR<sub>9</sub>;

or R<sub>1</sub> and R<sub>2</sub> taken together with the nitrogen atom to which they are attached form a heterocycle or a substituted heterocycle;

R<sub>3a</sub> and R<sub>3b</sub> are the same or different and, at each occurrence, independently hydrogen, alkyl, substituted alkyl, alkoxy, alkylthio, alkylamino, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl, substituted heterocyclealkyl, -COOR<sub>12</sub> or -CONR<sub>10</sub>R<sub>11</sub>;

or R<sub>3a</sub> and R<sub>3b</sub> taken together with the carbon atom to which they are attached form a homocycle substituted homocycle, heterocycle or substituted heterocycle;

or  $R_{3a}$  and the carbon to which it is attached taken together with  $R_1$  and the nitrogen to which it is attached form a heterocycle or substituted heterocycle;

$R_4$  is aryl, substituted aryl, arylalkyl, substituted arylalkyl, heteroaryl, substituted heteroaryl, heteroarylalkyl or substituted heteroarylalkyl;

$R_5$  is hydrogen, alkyl, or substituted alkyl;

$R_6$  is aryl, substituted aryl, heteroaryl, or substituted heteroaryl;

$R_7$  is hydrogen, alkyl, substituted alkyl;

$R_8$  is independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl or substituted heterocyclealkyl;

$R_9$  is independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl or substituted heterocyclealkyl;

$R_{10}$  and  $R_{11}$  are the same or different independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heterocycle, substituted heterocycle, heterocyclealkyl or substituted heterocyclealkyl; and

$R_{12}$  is hydrogen, alkyl, or substituted alkyl.

2. The compound of claim 1 wherein  $R_1$  is hydrogen, alkyl, substituted alkyl, arylalkyl, substituted arylalkyl, heterocyclealkyl or substituted heterocyclealkyl.

3. The compound of claim 1 wherein  $R_4$  is aryl, substituted aryl, arylalkyl, substituted arylalkyl, heteroaryl, heteroarylalkyl or substituted heteroarylalkyl.

4. The compound of claim 1 wherein  $R_6$  is substituted aryl, heteroaryl, or substituted heteroaryl.

5. A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier or diluent.

6. A method for antagonizing gonadotropin-releasing hormone in a subject in need thereof, comprising administering to the subject an effective amount of a compound of claim 1.

7. A method for treating a sex-hormone related condition of a subject in need thereof, comprising administering to the subject an effective amount of the pharmaceutical composition of claim 5.

8. The method of claim 7 wherein the sex-hormone related condition is cancer, benign prostatic hypertrophy or myoma of the uterus.

9. The method of claim 8 wherein the cancer is prostatic cancer, uterine cancer, breast cancer or pituitary gonadotroph adenomas.

10. The method of claim 7 wherein the sex-hormone related condition is endometriosis, polycystic ovarian disease, uterine fibroids or precocious puberty.

11. A method for preventing pregnancy of a subject in need thereof, comprising administering an effective amount of the pharmaceutical composition of claim 5.

12. A method for treating lupus erythematosis, irritable bowel syndrome, premenstrual syndrome, hirsutism, short stature or sleep disorders of a subject in need thereof, comprising administering to the subject an effective amount of the pharmaceutical composition of claim 5.